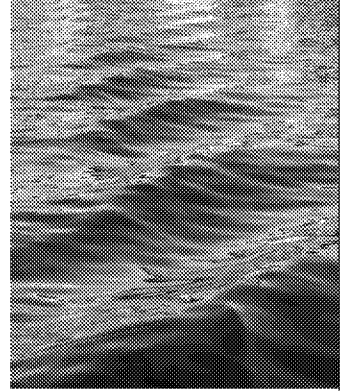
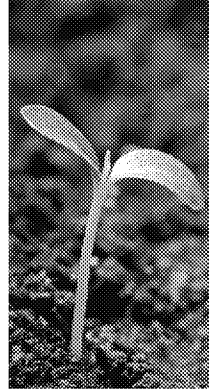


Anaconda Smelter Community Update

March 2019



Presentation Outline

- Introductions
- Conceptual Settlement Overview
- Consent Decree Negotiation Schedule
- 2019 Cleanup Activities
- Five Year Review
- Partial Deletions

Conceptual Settlement Overview

- **July 31, 2018** – Completed negotiations to reach resolution on remaining major issues at the site.
- **October 11, 2018** – Completed conceptual settlement framework for negotiating final Anaconda consent decree and other agreements.
- **December 4, 2018** – Modified confidentiality order to allow parties to publicly disclose certain assessments and other information about the proposed remedial actions.

Conceptual Settlement Overview

- Based on community input and collaboration between agencies and stakeholders, **proposed remedy modifications** have been developed to improve community protection.

Residential Soils	Residential Attics	Commercial Properties	Slag Piles	Upland Soils and Surface Water
<ul style="list-style-type: none">• Cleanup any yard component that exceeds 250 ppm arsenic	<ul style="list-style-type: none">• Sample and cleanup all attics where there is an attic access	<ul style="list-style-type: none">• Sample and cleanup soils from commercial and recreational properties that exceed standards	<ul style="list-style-type: none">• Partially cover slag piles while still allowing reuse	<ul style="list-style-type: none">• Complete additional cleanup of upland soils before waiving surface water standards

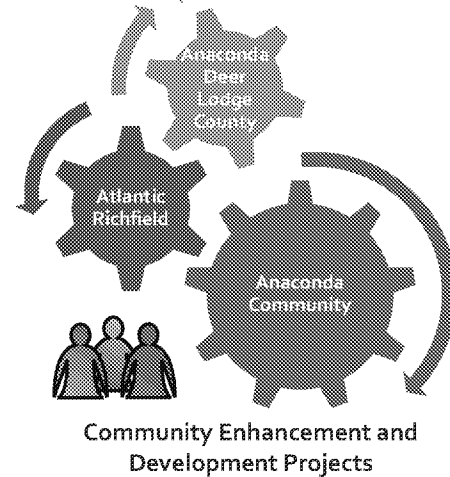
Conceptual Settlement Overview

- Under a final agreement, **Atlantic Richfield would provide funding** to Anaconda-Deer Lodge County to support the remedy, implement institutional controls, and provide for community enhancement and development.



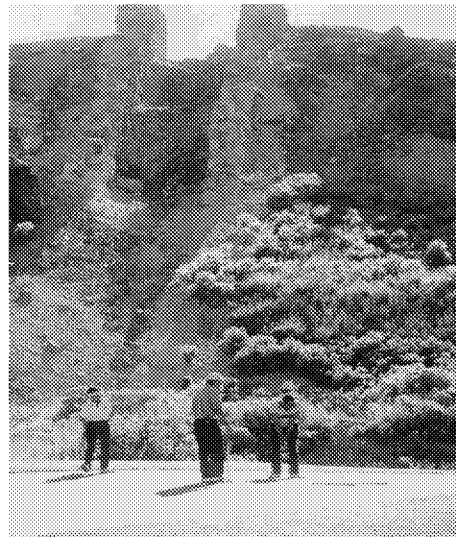
Community Enhancement and Economic Development

- Anaconda-Deer Lodge County and Atlantic Richfield will negotiate an allocation and settlement agreement to provide funding for **community enhancement and development projects**.
- Community enhancement and development projects would be developed through **community participation and visioning**.



Old Works Golf Course

- Anaconda-Deer Lodge County and Atlantic Richfield will negotiate an agreement to provide funding for the **operation and management** of the Old Works Golf Course.
- Improvements to the management, operation and use of the course to provide for long-term financial sustainability would be developed through **community participation and county ordinance**.



Old Works Golf Course

Institutional Controls Program

- Anaconda-Deer Lodge County and Atlantic Richfield will negotiate an agreement to jointly implement an **Institutional Controls Program**. Elements of the program include:

- **Development Permit System**

- Soils handling protocols
- Domestic well testing

- **Community Protective Measures Program**

Blood lead
monitoring

Soil swap
program

Attic dust
program

Community
outreach &
education

DPS PERMIT



Remedy Improvements - Community Soils

- **Residential Soils**

- Sample all residential soils within the Site where access is granted.
- Cleanup all individual yard components that exceed 250 ppm arsenic and/or 400 ppm lead (**no averaging**).
- Provide clean soil for **gardens and play areas** through the soil swap program.

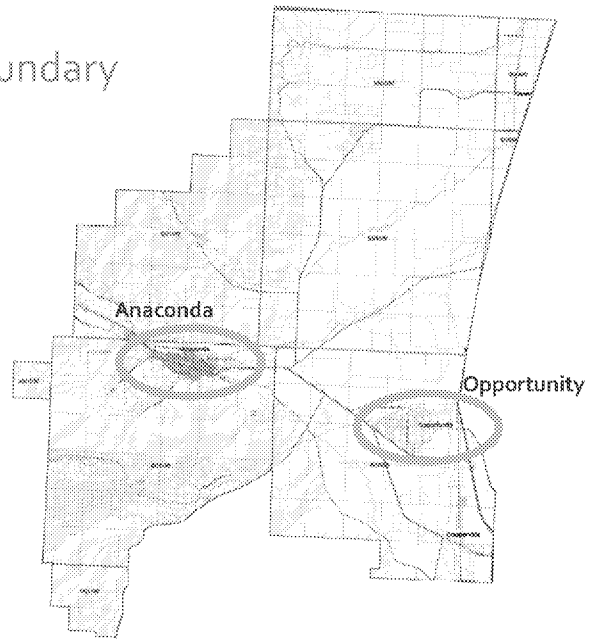
- **Residential Attics**

- Long-term program to **sample and cleanup all residential attics** where there is an access to the attic.

- **Commercial and Recreational Soils**

- Sample and cleanup soils from **commercial and recreational properties** that exceed applicable cleanup standards.

Community Soils Boundary



{bars:time}

Remedy Improvements - Upland Soils and Surface Water

- **Steep Slope Reclamation**
 - Use **innovative techniques** to establish vegetation on steep slopes.
 - Construct **stormwater BMPs** to reduce erosion on slopes.
- **Engineered Stormwater Controls**
 - Construct **sediment basins** to reduce sediment loading to streams.
- **Replace Railroad Bridges on Mill and Willow Creeks**
 - Remove **waste materials** associated with current bridge embankments.
- **Surface Water Management Plan**
 - **Monitor in-stream** for metals during **wet weather and normal flow** conditions.
 - **Replace State standards** with protective Federal replacement standards for certain contaminants of concern. Waiver of State standards would occur **only after work has been completed**.

(b)(6)(1)(c)

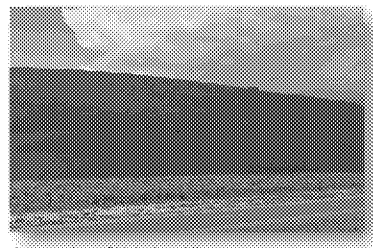
Upland Areas for Supplemental Surface Water Work



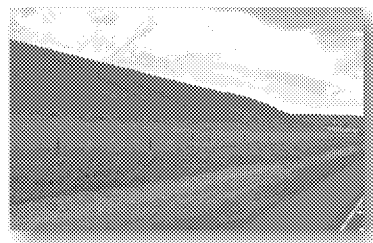
- STREAM/DRAINAGE LINE
- REDESIGNED CHANNELS (RMP)
- PROPOSED LOG SHECK DAMS
- PROPOSED SOLE FILL CHECK DAMS
- PROPOSED STONE CHECK DAMS
- WATER RIGHTS (WR)
- REDESIGNED INTERCEPTION TRENCH
- REDESIGNED RELEASE AREAS
- EXISTING DESIGNED USE AREAS INDICATED FOR DESIGN
- PROPOSED TREATMENT AREAS (MT)
- WATER RIGHTS (WR)
- EXISTING EXISTING AREAS
- PROPOSED DETENTION PONDS
- PROPOSED DETENTION PONDS

Remedy Improvements - Slag Management

- **Regrade and cover** north and west faces of Main Slag Pile.
- **Initiate closure** of Arbiter slag pile.
- Continue to **allow reuse** of slag.
 - Require best management practices to protect workers and prevent releases to the environment.
 - Market use of west stack slag.
 - Develop metrics for final closure of slag piles.

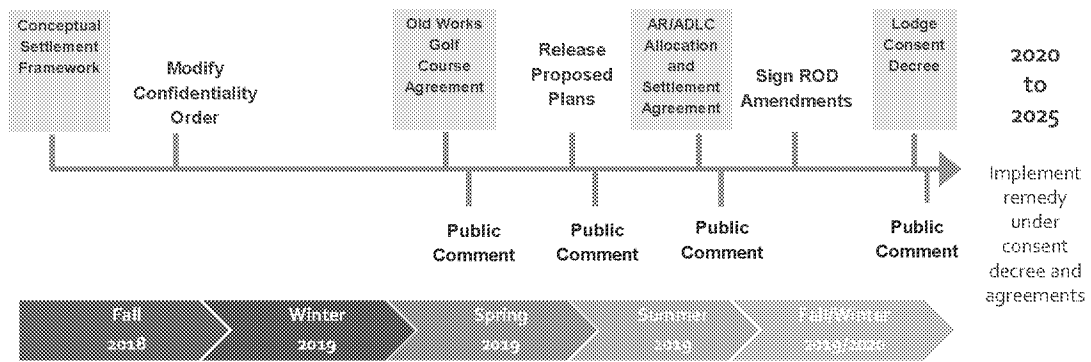


Current view of Main Slag Pile



View of how a covered slag pile would look

Consent Decree Negotiation Schedule



AR=Atlantic Richfield
ADLC=Anaconda-Deer Lodge County

Where We Are

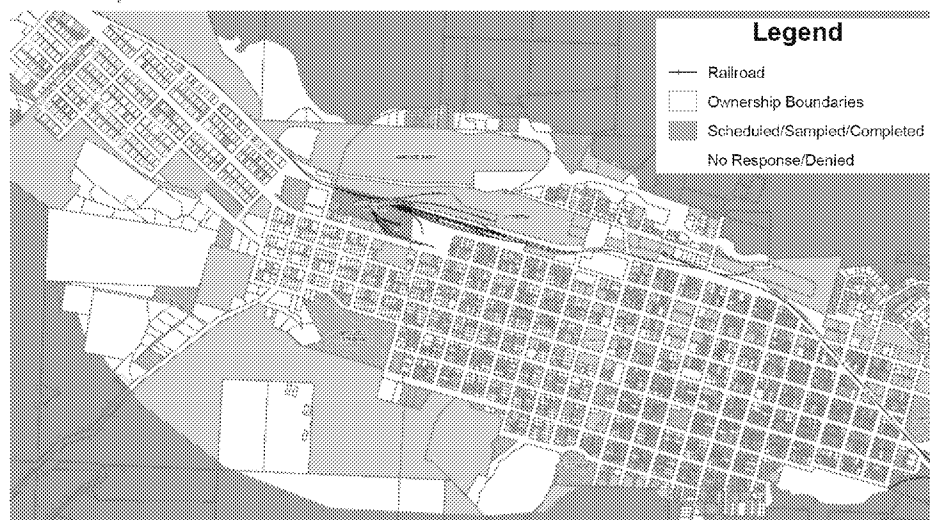
Timeframe	Decision or Action
October 11, 2018	Complete Conceptual Settlement Framework
December 4, 2018	Modify confidentiality order.
Next Steps	
Spring 2019	Complete OWGC Agreement. Public comment.
Spring/summer 2019	Release proposed plan. Public comment.
Summer 2019	AR and ADLC to complete allocation settlement agreement. Public comment.
Fall 2019	Complete decision documents.
Winter 2019/2020	Lodge consent decree. Public comment.
2020-2025	Remedy implementation under CD and agreements.

This slide doesn't add anything to the previous slide. I suggest getting rid of it or just keep the last line.

2019 Cleanup Activities

- Continue residential yard and attic cleanups
- Continue soil reclamation east and south of Opportunity
- Continue upland reclamation/restoration at Mt Haggin Wildlife Management Area
- Complete closure of Smelter Hill
- Complete Warm Springs Creek stabilization
- Initiate soil reclamation above Old Works
- Initiate replacement of railroad trestles on Mill and Willow Creeks

Community Soils – 2018 Status

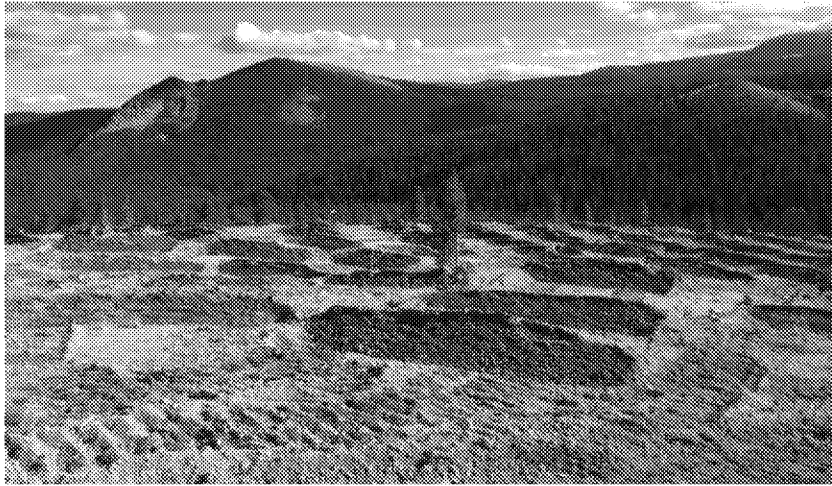


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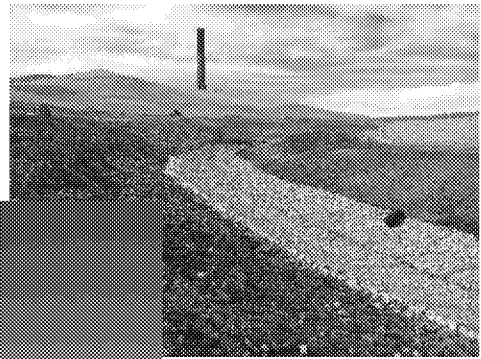
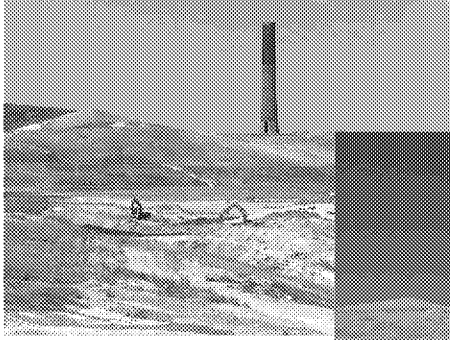
South Opportunity Reclamation



Mt. Haggin Reclamation/Restoration



Smelter Hill Reclamation



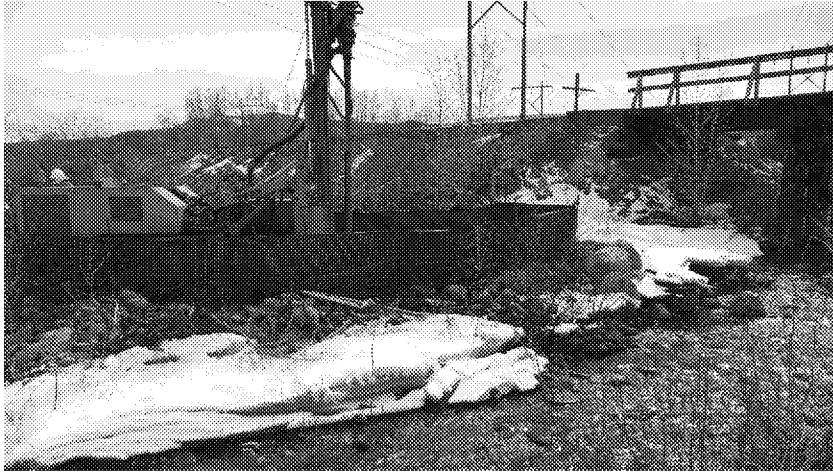
Warm Springs Creek Stabilization



Stucky Ridge Reclamation



Mill and Willow Creek RR Trestle Replacement



43

2/28/2012

Project text here

Five-Year Review

- Initiate the **sixth** Five-Year Review for Anaconda.
- Solicit public input on protectiveness of remedy.
- Solicit input on effective risk communication and public outreach.
- Ongoing or proposed studies and investigations include:
 - Sample schools
 - Conduct exposure investigation (ATSDR)
 - Evaluate community health statistics (MDPHHS)
 - Evaluate release/risk of slag to the community
 - Evaluate human consumption/risk of vegetables, livestock and wildlife
 - Evaluate soil/water risk to wildlife species.
- Complete Five Year Review in 2020.



School Sampling and Cleanup Status

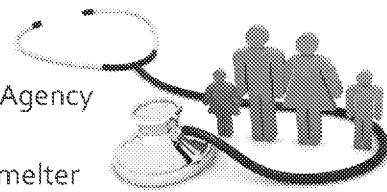
- EPA sampled the **interiors** of Anaconda schools and Head Start for **arsenic and lead**.
- Atlantic Richfield tested **soils** at the same locations.
- **All interior spaces** (classrooms, hallways, entrances, lunchrooms, gymnasiums and other spaces) used by students and workers were **below residential action levels**.
- **All soils** sampled were **below residential action levels**.
- Cleanup of limited **Attic or inaccessible dust** was **completed in 2018**.



Interior dust sampling

Health Study Status

- EPA is **funding a health study** being conducted by the Agency for Toxic Substances Disease Registry (ATSDR).
- The study is designed to evaluate **public exposure** to smelter contaminants.
- ATSDR sampled over 300 residents for blood-lead and urine-arsenic in 2018.
- ATSDR will complete an **exposure investigation** in 2019.
- The county and state will conduct a **community health assessment** evaluating mental health, addiction and aging concerns brought up by the community.
- EPA is currently conducting a **vegetable study** to evaluate fruits and vegetables being grown in Anaconda and the surrounding area.
- **Results** of ongoing studies are expected in 2019.



Partial Site Deletions

- **Initiated deletion** of Beryllium, Flue Dust and Arbiter operable units in **2018**.
 - **OU 9** – Beryllium. Cleanup is complete. Treated waste are stored in the Smelter Hill Repository Complex.
 - **OU 11** – Flue Dust. Cleanup is complete. Treated waste are stored in the Smelter Hill Repository Complex.
 - **OU 12** – Arbiter. Cleanup is complete. Waste are stored in the Smelter Hill Repository Complex.
 - Atlantic Richfield is responsible for the long term operation and maintenance of the Smelter Hill Repository Complex.
 - **Process** includes State concurrence, development of deletion docket, placement in Federal Register for public comment.
- **Partial deletions** to be completed in **2019**.
- **Initiate deletion** of Mill Creek and Old Works/East Anaconda Operable Units next.
- Initiate partial deletions of the last operable unit **2025**.

Community Engagement and Collaboration

- How can stakeholders and the community participate?
 - Arrowhead Technical Assistance Group
 - Site work groups (public health study)
 - Participate/review and comment on decision documents
 - Contact Jacqui Barker, barker.jacqui@epa.gov, Community Involvement Coordinator
 - Contact Charlie Coleman, coleman.charles@epa.gov, Remedial Project Manager
- Website information
 - <https://epa.gov/superfund/anaconda-co-smelter>

